

REMARKS

The Abstract has been amended so that it is limited to a single paragraph in accordance with the guidelines in MPEP 608.01(b). Non-elected claims 10-19 have been canceled without prejudice to the filing of a divisional application directed thereto. Claims 20 and 21 have been added directed to more specific embodiments of claim 1. Claim 20 is supported by, e.g., the disclosure at page 65, line 16 in the specification, and claim 21 is supported by, e.g., the disclosure at page 23, line 2 from the bottom, page 50, line 3 from the bottom, and the Examples (e.g., at pages 138-140).

Entry of the above amendment is respectfully requested.

Art Rejection

Claims 1-9 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious based on EP 1088679 ("EP '679"), Kawamura et al., U.S. Publication No. 2002/0106583 ("Kawamura") or Zhang et al., U.S. Patent No. 5,889,073 ("Zhang").

In response, Applicants note initially that the point of the present invention resides in a polymerization initiation layer. The polymerization initiation layer of the present invention is formed by a cross-linking reaction of "a polymer having functional groups having polymerization initiation ability" (hereinafter referred to as "polymerization initiation groups") and cross-linking groups, as recited in claim 1. Since the polymerization initiation layer of the present invention is formed by a cross-linking reaction of a polymer having polymerizable

groups and cross-linking groups, adhesiveness can be improved as clearly shown by the Examples in the present specification. Applicants wish to emphasize that the functional group having polymerization initiation ability is a polymerization initiator bonded to a polymer as a functional group.

Rejection under 35 U.S.C. 102(b)

The Examiner alleges that EP 1088679 (EP '679), US 2002/0106583 (Kawamura et al.) and US 5,889,073 (Zhang et al.) disclose graft polymerizing unsaturated compounds onto a photopolymerizable layer with photoinitiators, and thus the present invention is anticipated by these cited references. However, the present invention is different from these cited references as follows.

EP '679 and Kawamura each disclose that a graft polymer is directly bonded to a support. However, neither EP '679 nor Kawamura describes or suggests binding a graft polymer via "a polymerization initiation layer comprising a polymer", more specifically, "a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability (polymerization initiation groups) and cross-linking groups".

Zhang describes a polymerization initiation layer comprising a polymer. However, the polymerization initiation layer of Zhang is formed from a polymer to which a polymerization initiator is added (a polymer including a polymerization initiator), not a polymer including a polymerization initiation group at a side chain. Further, there is neither description nor

suggestion of forming a polymerization initiation layer from a polymer including a polymerization initiation group at a side chain.

Therefore, Applicants believe that the present invention is not anticipated by any of the cited references.

Rejection under 35 U.S.C. 103(a)

Applicants submit that the point of the present invention resides in the polymerization layer being a polymer. Further, the polymer forming the polymerization initiation layer has two functional groups, that is, (i) a polymerization initiation group and (ii) a cross-linking group, at side chains. Since the polymer has at least these two functional groups, adhesiveness of the graft polymer to the support can be improved. In this regard, Applicants direct the Examiner's attention to the additional test results of the Comparative Example shown in the Rule 1.132 Declaration submitted herewith.

In neither EP '679 nor Kawamura is there any description or suggestion of using a polymerization initiation layer or a polymerization initiation group, or improving adhesiveness by using a polymerization initiation layer or a polymerization initiation group. Therefore, a person having ordinary skill in the art would not have arrived at the present invention based on the disclosures of these two references.

Further, introducing a polymerization initiation group into a side chain of Zhang's polymer to form a polymerization initiation layer necessitates additional synthesis to introduce a polymerization initiation group, which is opposite to the object of Zhang, that is, "a process for

producing the material without increasing the number of process steps" (see column 2, lines 2-4 in Zhang).

In the additional test shown in the Rule 1.132 Declaration, an embodiment in which a polymerization initiator is contained in a polymer as in Zhang (the embodiment in which the polymerization initiator is not bonded to the polymer as a functional group) is tested as a Comparative Example. In the Comparative Example, it was observed that silver was peeled off during rubbing. In contrast, in the embodiments of the present invention (embodiments in which a polymerization initiator is bonded to a polymer as a functional group) as shown in the Examples section of the present specification (for instance, Examples 16 to 19), peeling off by rubbing was not observed.

Therefore, by comparing the embodiments of the present invention in which a polymerization initiator is bonded to a polymer as a functional group as shown in the Examples section of the specification (for instance, Examples 16 to 19) and the embodiment in which a polymerization initiator is contained in a polymer (an embodiment in which a polymerization initiator is not bonded as a functional group) as shown in the Rule 1.132 Declaration (Comparative Example), Applicants submit that it is clearly shown that the polymerization initiation layer of the present invention has a significant effect with respect to improving adhesiveness. Accordingly, as stated by the Declarant at the end of the Conclusion paragraph in the Declaration, the present invention shows unexpectedly superior effects.

According to the present invention, it was found that adhesiveness can be improved by using a polymer having the above two kinds of functional groups for a polymerization initiation

layer. This effect is shown in the Examples section of the present specification and the Rule 1.132 Declaration. Therefore, Applicants believe that the present invention is not obvious over the prior art.

Thus, withdrawal of the rejection under 35 U.S.C. § 102(b)/103(a) is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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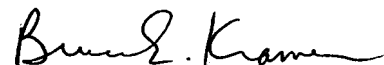
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